

We claim:

1. A process for preparing a supported cocatalyst for olefin polymerization, which comprises reacting

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A) a support bearing functional groups,

B) triethylaluminum and

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C) a compound of the formula (I),



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where

A is an atom of group 13 or 15 of the Periodic Table,

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$R^1$  are identical or different and are each, independently of one another, hydrogen, halogen,  $C_1$ - $C_{20}$ -alkyl,  $C_1$ - $C_{20}$ -haloalkyl,  $C_1$ - $C_{10}$ -alkoxy,  $C_6$ - $C_{20}$ -aryl,  $C_6$ - $C_{20}$ -haloaryl,  $C_6$ - $C_{20}$ -aryloxy,  $C_7$ - $C_{40}$ -arylalkyl,  $C_7$ - $C_{40}$ -haloarylalkyl,  $C_7$ - $C_{40}$ -alkylaryl,  $C_7$ - $C_{40}$ -haloalkylaryl or an  $OSiR_3^2$  group, where

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$R^2$  are identical or different and are each hydrogen, halogen,  $C_1$ - $C_{20}$ -alkyl,  $C_1$ - $C_{20}$ -haloalkyl,  $C_1$ - $C_{10}$ -alkoxy,  $C_6$ - $C_{20}$ -aryl,  $C_6$ - $C_{20}$ -haloaryl,  $C_6$ - $C_{20}$ -aryloxy,  $C_7$ - $C_{40}$ -arylalkyl,  $C_7$ - $C_{40}$ -haloarylalkyl,  $C_7$ - $C_{40}$ -alkylaryl or  $C_7$ - $C_{40}$ -haloalkylaryl,

y is 1 or 2 and

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x is 3 minus y.

2. A process as claimed in claim 1, which comprises first reacting the support bearing functional groups A) with triethylaluminum B) and subsequently allowing the reaction product to react with the compound of the formula (I) C).

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3. A process as claimed in claim 1 or 2, wherein A in formula (I) is boron.

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4. A process as claimed in claim 3, wherein R<sup>1</sup> in formula (I) is C<sub>6</sub>-C<sub>10</sub>-haloaryl, C<sub>7</sub>-C<sub>20</sub>-alkylaryl or C<sub>7</sub>-C<sub>20</sub>-haloalkylaryl.
5. A supported cocatalyst obtainable by a process as claimed in any of claims 1 to 4.
- 5 6. The use of a supported cocatalyst prepared as claimed in any of claims 1 to 4 for preparing a catalyst system for the polymerization of olefins.
7. A catalyst system for the polymerization of olefins, obtainable by bringing at least one  
10 supported cocatalyst as claimed in claim 5 into contact with
- D) at least one organic transition metal compound.
8. A catalyst system for the polymerization of olefins as claimed in claim 7, wherein  
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- E) at least one organometallic compound
- is additionally added in its preparation.
- 20 9. A catalyst system for the polymerization of olefins as claimed in claim 8 which is prepared by firstly preparing a catalyst solid by bringing at least one supported cocatalyst as claimed in claim 5 into contact with at least one organic transition metal compound D), then bringing this catalyst solid into contact with at least one organometallic compound E) in a second  
25 step and then using this mixture without further work-up for the polymerization.
10. A process for the polymerization of olefins using a catalyst system as claimed in any of  
30 claims 7 to 9.
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